93-0028

STUDY TITLE: Socioeconomic Impacts of Declining Outer Continental Shelf (OCS) Oil and Gas Activities in the Gulf of Mexico (GOM).

REPORT TITLE: Socioeconomic Impacts of Declining Outer Continental Shelf (OCS) Oil and Gas Activities in the Gulf of Mexico (GOM).

CONTRACT NUMBER: MMS 14-12-0001-30335

SPONSORING OCS REGION Gulf of Mexico

APPLICABLE PLANNING AREAS: Central and Western Gulf of Mexico

APPLICABLE COASTAL AREAS: Central and Western Gulf of Mexico

FISCAL YEARS OF PROJECT FUNDING: 1988-1992

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KEY **WORDS:** central Gulf, western Gulf, socioeconomic, impact, boom-bust, population, jobs, earnings, regression analysis, cause-effect model, price, production, vahse, exploratory wells, coastal communities.

BACKGROUND: This project is the third in a series of phased studies initiated by the Minerals Management Service (MMS) addressing the socioeconomic impact of outer continental shelf (OCS) oil and gas activities in the Gulf of Mexico (GOM). Recent declines its the price of oil and gas have led to corresponding declines in oil and gas activities. This recent price-related decline has contributed to a general economic recession withii coastal communities whose economic base is founded on oil and gas activities. The conditions resulting from the recent price-related decline provide a case study scenario upon which future socioeconomic impacts resulting from a resource depletion can be explored.

OBJECTIVES: The primary objectives of this study were 1) to analyze the socioeconomic impacts of the recent price-related decline in outer continental shelf (OCS) oil and gas activity, and ' 2) to formulate a set of conceptual cause-effect models that express the relationships between changes in OCS activities and select socioeconomic attributes.

DESCRIPTION: Socioeconomic changes associated with the recent price-related decfine in OCS oil and gas activities provide insight into the nature of changes expected to accompany a secular decline related to resource depletion. Data on the magnitude and expanse of the measurable change experienced were employed to explore formulation of a set of conceptual cause-effect models that express the relationships between OCS activities and socioeconomic characteristics.

SIGNIFICANT CONCLUSIONS: Although most of the counties and parishes within the study area exhibit socioeconomic characteristics closely associated with the oil and gas industry, the

association in select areas is more closely aligned with non-OCS oil and gas activity. In many cases, what was happening in non-OCS areas was statistically mom significant than OCS activity.

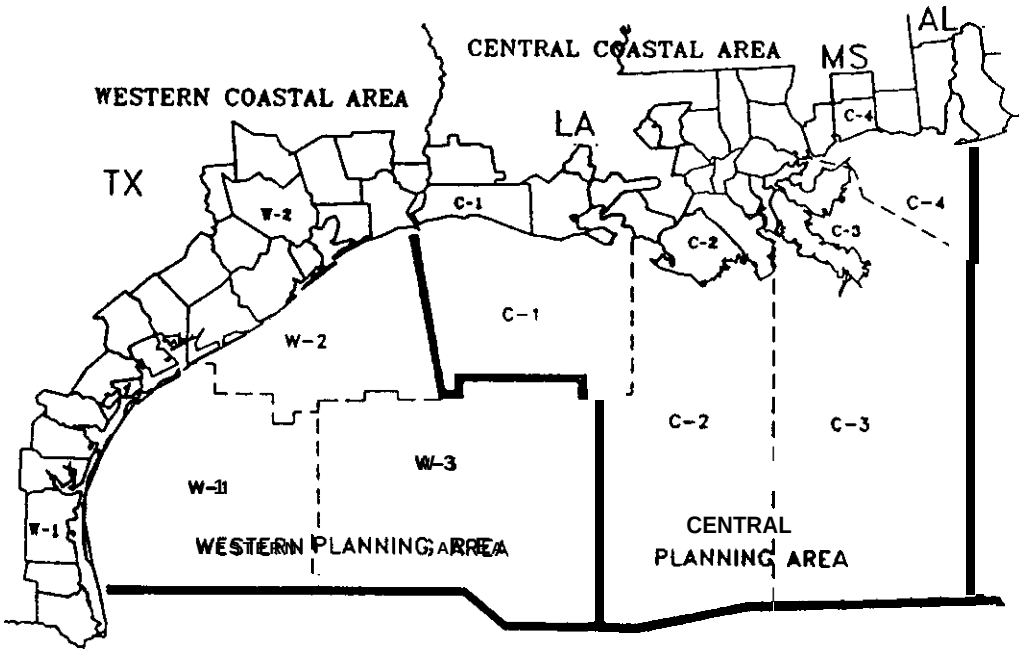
STUDY RESULTS: A set of conceptual cause-effect models that express the relationships between changes (declines) in OCS activities and changes for each SAC component were to be formulated. However, based on the analyses performed, no theoretically meaningful models relating OCS oil and gas activities to socioeconomic conditions were possible. A number of factors may account for this situation

The available data are limited statistically in that the data represent relatively large geographical areas (counties or parishes) and cannot be broken down into smaller geographic or political units. The selection of tbe original study area was based primarily on proximity and consisted of 49 counties and parishes that bordered the Gulf of Mexico or had metropolitan areas near the Gulf. Actual economic impact was not a factor in defining the study sues.

Data analysis revealed unexpectedly weak correlation and a series of outliers associated with the upper Texas coast and thus pointed to the treed to reconsider the defined impact area within the study area It is highly probable that tbe remaining 36 counties and parishes do not adequately define the impact area either. The economic impact area may be far more localized. Further analysis on a restricted geographic range is not possible due to the aggregate nature of the existing data.

The effects of non-OCS and OCS oil and gas production are inextricably mixed. Numerous industries and businesses in the Gulf of Mexico study ares serve both sectors of the petroleum mining industry. The demographic characteristics, the employment patterns of the general population and government economic indicators are affected by onshore and offshore production. Many of the regression models indicated that non-OCS production was a better predictor of socioeconomic change than was OCS production. Also, these mixed effects may be one reason why there are such high levels of multicollinearity among variables and why the estimated regression models accounted for such a low amount of variance in the dependent variables.

STUDY PRODUCTS: Two reports 1) Socioeconomic Impacts of Declining Outer Continental Shelf (OCS) Oil and Gas Activities in the Gulf of Mexico (GOM), and 2) Alternative Economic Development Opportunities for OCS-Related Facilities and Infrastructure. A bound index of database tiles. Diskettes containing the automated database for socioeconomic attribute category data for each of the 49 counties and parishes for 1960,1970, 1980-1986, and OCS and non-OCS oil and gas activity indicator data.



WESTERN COASTAL AREA
W-1
Aransas, Calhoun, Cameron, Jackson, Kenedy, Kleberg, Nueces, San Patricio, Refugio, Victoria, Willacy

WESTERN COASTAL AREA
W-2
Brazoria, Chambers, Fort Bond, Galveston, Hardin, Harris, Jefferson, Liberty, Matagorda, Montgomery, Orange, Waller, Wharton

CENTRAL COASTAL AREA
C-1
Cameron, Calcasieu, Iberia, Lafayette, Vermilion
C-2
Ascension, East Baton Rouge, Lafourche, Livingston, St. Charles, St. James, St. Mary, St. John the Baptist, Tangipanoa Terrebonne, West Baton Rouge

CENTRAL COASTAL AREA
C-3
Jefferson, Orleans, Plaquemines, St. Bernard, St. Tammany
c-4
Baldwin, Hancock, Harrison, Jackson, Mobile, Stone

Coastal and Planning Areas of the Socioeconomic Impacts of Declining Outer Continental Shelf (OCS) Oil and Gas Activities in the Gulf of Mexico (GOM) Study.